

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A Y_2O_3 spray-coated member characterized by covering a surface of a substrate with a Y_2O_3 black spray coating, wherein the Y_2O_3 black spray coating is generated by a laser or electron beam process.

2. (Original) A Y_2O_3 spray-coated member according to claim 1, wherein an undercoat made of a metal coating is disposed beneath a Y_2O_3 black spray coating.

3. (Original) A Y_2O_3 spray-coated member according to claim 2, wherein a middle layer is disposed between an undercoat made of a metal coating and a Y_2O_3 black spray coating as a top coat.

4. (Previously Presented) A Y_2O_3 spray-coated member according to claim 2, wherein the undercoat is a metal coating made of at least one metal or alloy selected from Ni and its alloy, W and its alloy, Mo and its alloy, Ti and its alloy, Al and its alloy, and Mg alloy at a thickness of 50-500 μm .

5. (Original) A Y_2O_3 spray-coated member according to claim 3, wherein the middle layer is made of a coating of Al_2O_3 , a double oxide of Al_2O_3 and Y_2O_3 , a solid solution or a mixture thereof.

6. (Previously Presented) A Y_2O_3 spray-coated member according to claim 1, wherein the Y_2O_3 black spray coating is obtained by forming a Y_2O_3 re-molten layer having a thickness of less than 30 μm and a blackened Y_2O_3 layer on a surface of the Y_2O_3 spray coating.

7. (Previously Presented) A Y_2O_3 spray-coated member according to claim 1, wherein the Y_2O_3 black spray coating is constituted with a layer in which Y_2O_3 particles blackened on an outer peripheral portion or an inside of Y_2O_3 particle constituting the spray coating are deposited to a thickness of about 50-2000 μm .

8. (Original) A method of producing a Y_2O_3 spray-coated member, characterized in that a white Y_2O_3 powdery material is plasma-sprayed directly on a surface of a substrate or on an undercoat applied onto the surface of the substrate in an inert gas atmosphere substantially containing no oxygen to form a Y_2O_3 black spray coating.

9. (Original) A method of producing a Y_2O_3 spray-coating member, characterized in that a white Y_2O_3 powdery material is sprayed on a surface of a substrate to form a Y_2O_3 white spray coating and then a laser beam is irradiated to form a blackened Y_2O_3 layer on a surface of the Y_2O_3 white spray coating.

10. (Original) A method of producing a Y_2O_3 spray-coated member, characterized in that a white Y_2O_3 powdery material is sprayed directly on a surface of a substrate or on an undercoat applied onto the surface of the substrate to form a Y_2O_3 white spray coating, and then an electron beam is irradiated under a low pressure or in an inert gas atmosphere under a low pressure to form a blackened Y_2O_3 layer on the surface of the Y_2O_3 white spray coating.

11. (Previously Presented) A method of producing a Y_2O_3 spray-coated member according to claim 8, wherein the undercoat made of a metal coating is disposed beneath the Y_2O_3 black spray coating.

12. (Previously Presented) A method of producing a Y_2O_3 spray-coated member according to claim 8, wherein a middle layer is disposed between the undercoat made of a metal coating and the Y_2O_3 black spray coating formed as a top coat.

13. (Original) A method of producing a Y_2O_3 spray-coated member according to claim 8, wherein the inert gas atmosphere is an atmosphere under a low pressure of 50-600 hPa.

14. (Original) A method of producing a Y_2O_3 spray-coated member according to claim 8, wherein the inert gas atmosphere includes an environment of a heat source for an

atmosphere plasma spraying surrounded with a gas such as Ar, N₂ or the like so as not to penetrate air into the heat source.

15. (Original) A method of producing a Y₂O₃ spray-coated member according to claim 12, wherein the middle layer is made of a coating of Al₂O₃, a double oxide of Al₂O₃ and Y₂O₃, a solid solution or a mixture thereof.

16. (Previously Presented) A method of producing a Y₂O₃ spray-coated member according to claim 8, wherein the Y₂O₃ black spray coating is obtained by forming a Y₂O₃ re-molten layer having a thickness of less than 30 μm and a blackened Y₂O₃ layer on a surface of the Y₂O₃ spray coating.

17. (Preciously Presented) A method of producing a Y₂O₃ spray-coated member according to claim 8, wherein the Y₂O₃ black spray coating is constituted with a layer in which Y₂O₃ particles blackened on an outer peripheral portion or an inside of Y₂O₃ particle constituting the spray coating are deposited to a thickness of about 50-2000 μm.